

**SAF-RC-001**  
**Industrial Hygiene Sampling**  
**FINAL DATA**

**NO DISTRIBUTION REQUIRED**

**COMMENTS:**

SDG 06I-0519-01 SAF-RC-001

Rad only   X   Chem only   Rad & Chem

X Complete   Partial

**300 Area 334 Pad**

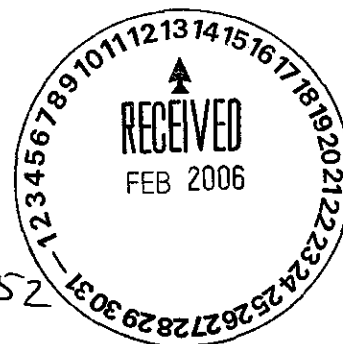
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## Cover Page

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Report Identification Number: 06I-0519-01  
Subcontract Number: 0000X-BO-G0058-B-Mod#4  
Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby  
Laboratory Identification Number: DCHM  
SAF#: RC-001 / ~~R34400-J452~~ R33400 J452  
Payroll#: 8C278



### Sample Information

Sample Date	Customer Sample Number	Laboratory Sample Number	Method	Analytical Batch Identification	Sample Matrix
06 Feb 2006	J113V3	06I04319	NMAM 7300M	G0618004	G WIPE
06 Feb 2006	J113V4	06I04320	NMAM 7300M	G0618004	G WIPE
06 Feb 2006	J113V5	06I04321	NMAM 7300M	G0618004	G WIPE
06 Feb 2006	J113V6	06I04322	NMAM 7300M	G0618004	G WIPE

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Name: Lisa M. Reid  
Title: Chemist  
Date: February 13, 2006

Report Identification Number: 06I-0519-01  
Subcontract Number: 0000X-BO-G0058-B-Mod#4  
Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby  
Laboratory Identification Number: DCHM  
SAF#: RC-001 / R34400 J452  
Payroll#: 8C278

**General Set Information:** There are 4 samples in set 06I-0517-01, 4 samples in set 06I-0518-01, 4 samples in set 06I-0519-01, 4 samples in set 06I-0545-01, 4 samples in set 06I-0546-01 and 4 samples in set 06I-0547-01 which were analyzed for cadmium, lead and beryllium on Ghost Wipe. No problems were encountered with the receipt of these samples and no contact with the CTR was required.

**Method Summary:** Samples were transferred to 50 ml centrifuge tubes and digested in the presence of 5 mL of nitric acid and 5 mL of ASTM Type II water. Samples were digested in a hot block set at 110°C for 60 minutes. Samples were then diluted to a 25 mL volume with ASTM Type II Water. Samples were shaken and delivered for ICP analysis.

**Sample Preparation:** All samples were prepared in accordance with DCL SOP "IH-AN-021" and NIOSH method NMAM 7300 modified for hot block digestion.

**Holding Times:** The holding times were met for both sample preparation and analysis.

**Instrument Calibration:** Instrument calibration was performed in accordance with NIOSH method NMAM 7300.

**Initial and Continuing Calibration Verification Analysis:** Beryllium, cadmium and lead recoveries in all Initial Calibration Verification (ICV) and Continuing Calibration Verification (CCV) samples are within the quality control limits of +/- 10%.

**Initial and Continuing Calibration Blank Analysis:** No beryllium results were found in the Initial Calibration Blank (ICB) or Continuing Calibration Blanks (CCB) at levels above the Contract Required Detection Limits (CRDL) of 0.02 ug/sample. No cadmium results were found in the Initial Calibration Blank (ICB) or Continuing Calibration Blanks (CCB) at levels above the Contract Required Detection Limits (CRDL) of 0.1 ug/sample. No lead results were found in the Initial Calibration Blank (ICB) or Continuing Calibration Blanks (CCB) at levels above the Contract Required Detection Limits (CRDL) of 3. ug/sample.

**Method Blank Analysis:** No beryllium, cadmium or lead was found in any of the media blank samples above the Contract Required Detection Limit (CRDL).

**Dilution(s):** None.

**Laboratory Control Sample and Duplicate Analysis:** Two Laboratory Control Samples (LCSs) and two Laboratory Control Sample Duplicates (LCSDs) were prepared and analyzed with the sample batch. The LCS results were within the control limits of +/- 20%. The Relative Percent Difference (RPD) between the LCSs and the LCSDs were within the control limit of 20%.

**Replicate Analysis:** Four samples in this batch were replicated. The RPD between the samples and the replicates was within the control limit of 20%. If the result of the sample or replicate is below the CRDL, replicate analysis is negligible.

**Flagging Codes:** None

**Nonconformance/Corrective Action Report (NC/CAR):** N/A

**Sample Calculation:** The final results are calculated by the following equation:  
Final result for aqueous samples ( $\mu\text{g}/\text{sample}$ ) = (A) x (B) x (C)

Where:

A = Analyte concentration from instrument determination ( $\mu\text{g}/\text{L}$ )

B = Concentration factor from sample preparation

=  $\frac{\text{Final Volume of Digestate (L)}}{\text{Sample}}$

C = Dilution performed at time of analysis

Example Calculation:  $(1 \mu\text{g}/\text{L}) \times (0.025 \text{ L}/\text{sample}) \times (1) = 0.025 \mu\text{g}/\text{sample}$

**Miscellaneous Comments:** None



## Report Page

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Report Identification Number: 06I-0519-01  
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Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby  
Laboratory Identification Number: DCHM  
SAF#: RC-001 / R34400 J452  
Payroll#: 8C278

Customer Sample Number	Laboratory Sample Number	Date Analyzed	Beryllium µg/sample		Cadmium µg/sample		Lead µg/sample	
J113V3	06I04319	09 Feb 2006	0.020		0.18		<3.	U
J113V4	06I04320	09 Feb 2006	<0.02	U	<0.1	U	<3.	U
J113V5	06I04321	09 Feb 2006	<0.02	U	<0.1	U	<3.	U
J113V6	06I04322	09 Feb 2006	<0.02	U	<0.1	U	<3.	U
Limit of Detection (LOD)			0.02		0.1		3.	
Required Detection Limit (RDL)								

U - Parameter not detected above LOD.

J - Parameter between LOD and RDL.



## QC Summary Page

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Report Identification Number: 06I-0519-01  
Subcontract Number: 0000X-BO-G0058-B-Mod#4  
Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby  
Laboratory Identification Number: DCHM  
SAF: RC-001 / R34400 J452  
Payroll#: 8C278

Batch ID: G0618004

QC Sample ID	QC Type	Analyte	Units	Result	Parent Result	Target	Percent Rec.	Relative Percent Diff.
BL-241089-1	MB	Beryllium	µg/sample	ND	NA	NA	NA	NA
BL-241089-1	MB	Cadmium	µg/sample	ND	NA	NA	NA	NA
BL-241089-1	MB	Lead	µg/sample	ND	NA	NA	NA	NA
QC-241089-1	LCS	Beryllium	µg/sample	12.1	NA	10.0	121.	NA
QC-241089-1	LCS	Cadmium	µg/sample	33.6	NA	30.0	112.	NA
QC-241089-1	LCS	Lead	µg/sample	106.	NA	100.	106.	NA
QD-241089-1	LCSD	Beryllium	µg/sample	11.9	12.1	10.0	119.	1.59
QD-241089-1	LCSD	Cadmium	µg/sample	33.5	33.6	30.0	112.	0.375
QD-241089-1	LCSD	Lead	µg/sample	105.	106.	100.	105.	0.339

MB - Method Blank

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MSD - Matrix Spike Duplicate

LD - Laboratory Duplicate

NA - Not Applicable

ND - Parameter not detected above LOD

$LCS, LCSD \text{ Percent Rec.} = (\text{Result} / \text{Target}) * 100.0$

$MS, MSD \text{ Percent Rec.} = ((\text{Result} - \text{Parent}) / \text{Target}) * 100.0$

$LCS, LCSD \text{ Relative Percent Diff.} = ( (|\text{LCS} - \text{LCSD}|) / ((\text{LCS} + \text{LCSD})/2.0) ) * 100.$

$MS, MSD \text{ Relative Percent Diff.} = ( (|\text{MS} - \text{MSD}|) / ((\text{MS} + \text{MSD})/2.0) ) * 100.$

$LD \text{ Relative Percent Diff.} = ( (|\text{Parent} - \text{LD}|) / ((\text{Parent} + \text{LD})/2.0) ) * 100$

WTC-0599.01

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST												
Collector		Company Contact		Telephone No.		Project Coordinator		Data Transmittal				
J. Shilo		Denise A. Pitts and Henry W. Ruby		531-1229		Jana H. Krasner		Standard				
Payroll #		Sampling Location		SPECIAL INSTRUCTIONS		SAF No.		RC-001				
80278		300 Area 334 Pad		All relevant EODs must be provided: R3400-J452 R3400-J452 ANALYSIS METHOD (SPECIFIC): NIOSH 7300		Method of Shipment		Fed Ex				
Type of Sample		Wipe Sample Matrix		Other		Bill of Lading/Air Bill No.		8544 9435 4748				
Shipped To:		Datachem		Salt Lake City								
POSSIBLE SAMPLE HAZARD/MARKS		Be, Pb, Cd										
Special Handling and/or Storage		No										
SAMPLE ANALYSIS												
SAMPLE NO.	MATRIX	SAMPLE DATE	VOLUME (LITERS) (over 100 cc)	Comments	Asbestos Airborne	Lead Airborne	Beryllium Airborne	Beryllium Wipe	Mold	Lead Wipe	Cd Wipe	Asbestos
J113V3	WI	2-6-06	1.	Step 04 Pad	No	No	No	No	No	No	No	No
J113V4	WI	2-6-06	Large Area	Entire Work Unit	No	No	No	No	No	No	No	No
J113V5	WI	2-6-06	N/A	Blank	No	No	No	No	No	No	No	No
J113V6	WI	2-6-06	N/A	Blank	No	No	No	No	No	No	No	No

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WCH-SH-202 (10/29/2005)

Enter on line below the first Sample Number from Page One:

T11313

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			
SIGN / PRINT NAMES / USE MILITARY TIME			
Received By/Name:	DATE / TIME:	Received By/Name:	DATE / TIME:
James Shiley	2-6-06 / 1645	Locked Cabinet, Rm 16, Bldg 3746 per	2-6-06 / 1645
Received By/Name:	DATE / TIME:	Received By/Name:	DATE / TIME:
Locked cabinet Bldg 3746 Rm#16		R2 Steffler R.J. Steffler	2-7-06 / 1430
Received By/Name:	DATE / TIME:	Received By/Name:	DATE / TIME:
Goldie Mathison	02-07-06 / 1430	Fed Ex	
Received By/Name:	DATE / TIME:	Received By/Name:	DATE / TIME:
R2 Steffler R.J. Steffler	2-7-06 / 1530	Merckel, Edward	2-7-06 / 1530
Received By/Name:	DATE / TIME:	Received By/Name:	DATE / TIME:
Edie		Shiley, James	
Received By/Name:	DATE / TIME:	Received By/Name:	DATE / TIME:
Merckel, Edward			
Received By/Name:	DATE / TIME:	Received By/Name:	DATE / TIME:
Received By/Name:	DATE / TIME:	Received By/Name:	DATE / TIME:
Received By/Name:	DATE / TIME:	Received By/Name:	DATE / TIME:
Received By/Name:	DATE / TIME:	Received By/Name:	DATE / TIME:
LABORATORY SECTION	Received By	Title	DATE / TIME
	Merckel, Edward		2-7-06 / 1530

REVIEWED BY:

DATE:

PRINT/SIGN NAME

WCH-SH-202 (08/29/2005)

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Enter on line below the first Sample Number from Page One:

J113V3

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			
SIGN / PRINT NAMES / USE MILITARY TIME			
Relinquished By/Store:	DATE / TIME:	Received By/Store:	DATE / TIME:
James Shiley	2-6-06 / 1645	Locked Cabinet, Rm 16, Bldg 3746	2-6-06 / 1645
Relinquished By/Store:	DATE / TIME:	Received By/Store:	DATE / TIME:
locked cabinet Bldg 3746 Rm#16		RZ Steffler R.J. Steffl	2-7-06 / 1430
Relinquished By/Store:	DATE / TIME:	Received By/Store:	DATE / TIME:
Golden Maller Goldie Mather	02-07-06 / 1430		
Relinquished By/Store:	DATE / TIME:	Received By/Store:	DATE / TIME:
RZ Steffler R.J. Steffl	WCH 2-7-06 / 1530	Fed Ex	
Relinquished By/Store:	DATE / TIME:	Received By/Store:	DATE / TIME:
Relinquished By/Store:	DATE / TIME:	Received By/Store:	DATE / TIME:
Relinquished By/Store:	DATE / TIME:	Received By/Store:	DATE / TIME:
Relinquished By/Store:	DATE / TIME:	Received By/Store:	DATE / TIME:
Relinquished By/Store:	DATE / TIME:	Received By/Store:	DATE / TIME:
Relinquished By/Store:	DATE / TIME:	Received By/Store:	DATE / TIME:
LABORATORY SECTION	Received By	Title	DATE / TIME

REVIEWED BY:

DATE:

PRINT/SIGN NAME